

**REMARKS**

The Office Action mailed August 3, 2009, has been received and reviewed. Claims 26-61 are currently pending in the application. Claims 26-61 stand rejected. Applicant has amended claims 26 and 40, and respectfully requests reconsideration of the application as amended herein. No new matter has been added.

**35 U.S.C. § 103(a) Obviousness Rejections**

Obviousness Rejection Based on U.S. Pat. Publ. No. 2003/0060195 A1 and U.S. Pat. No. 5,873,046

Claims 26-50 and 56-61 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 2003/0060195 A1 to Dent (“Dent”) in view of U.S. Patent No. 5,873,046 to Bronner (“Bronner”).

To establish a *prima facie* case of obviousness the prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 985 (CCPA 1974); *see also* MPEP § 2143.03. Additionally, there must be “a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1742, 167 L.Ed.2d 705, 75 USLW 4289, 82 U.S.P.Q.2d 1385 (2007). Finally, to establish a *prima facie* case of obviousness there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). Furthermore, the reason that would have prompted the combination and the reasonable expectation of success must be found in the prior art, common knowledge, or the nature of the problem itself, and not based on the Applicants’ disclosure. *DyStar Textilfarben GmbH & Co. Deutschland KG v. C. H. Patrick Co.*, 464 F.3d 1356, 1367 (Fed. Cir. 2006); MPEP § 2144. Underlying the obvious determination is the fact that statutorily prohibited hindsight cannot be used. *KSR*, 127 S.Ct. at 1742; *DyStar*, 464 F.3d at 1367.

The 35 U.S.C. § 103(a) obviousness rejections of claims 26-50 and 56-61 are improper because the elements for a *prima facie* case of obviousness are not met. Specifically, the rejection fails to meet the criterion that the prior art reference must teach or suggest all the claims limitations.

**Regarding independent claims 26 and 40,** Applicant’s independent claims 26 and 40

include claim elements not taught or suggested in the cited references. Applicant's independent claims 26 and 40 each respectively recite, in part, "***further circuitry being operable to receive an intermediate frequency (IF) common to each mode of operation and further downconvert the IF common to each mode*** into a further signal and to supply the further signal to further circuitry" (Applicant's independent claim 26) and "***further circuitry being operable to upconvert a received signal into an intermediate frequency (IF) common to each mode of operation and to supply the IF common to each mode to the first and the second terminal RF stages***" (Applicant's independent claim 40). Applicant respectfully asserts that neither Dent nor Bronner, either individually or in any proper combination, teach or suggest such claim limitations.

The Office Action concedes:

In regards to claims 26, 40, and 58, ... ***Dent, however, does not specifically disclose further circuitry, the further circuitry being operable to receive an intermediate frequency (IF) common to each mode of operation and to supply a further signal to further RF circuitry.*** (Office Action, pp. 2-3; emphasis added).

The Office Action then alleges:

***Bronner, however, does disclose further circuitry (See Fig. 3 and integrated dual-mode intermediate-frequency (IF) amplifier 330), the further circuitry being operable to receive an intermediate frequency (IF) common to each mode (e.g., analog mode and digital mode) of operation and to supply a further signal to further RF circuitry (See col. 1 lines 6-10, col. 2 lines 25-30, and col. 6 lines 39-58).*** (Office Action, p. 3; emphasis added).

Applicant respectfully notes that the Office Action cites Bronner's "integrated dual-mode intermediate-frequency (IF) ***amplifier 330***" as allegedly teaching Applicant's claim element of "further circuitry." While Bronner's "amplifier 330" may or may not teach as alleged, Applicant has amended independent claim 26 and 40 to include claim limitations which are clearly **not** taught in Bronner. Specifically, Applicant's "***further circuitry***" as claimed in amended independent claim 26 is "***operable to ... further downconvert the IF common to each mode***" and Applicant's "***further circuitry***" as claimed in amended independent claim 40 is "***operable to upconvert a received signal into an intermediate frequency (IF) common to each mode***" which is not taught in Bronner.

Specifically, Applicant directs the Examiner to Bronner's Figure 3 which illustrates the "integrated dual-mode intermediate-frequency (IF) amplifier 330" asserted as allegedly teaching

Applicant's "further circuitry." As noted in Bronner's element 330 in Figure 3, Bronner's element 330 only includes amplifier stages 200, summing circuit 310 and gain control circuit 320. Clearly none of the elements within the cited "further circuitry" 330 of Bronner is capable of, nor would have any need for, upconverting or downconverting based upon an intermediate frequency.

Therefore, since neither Dent nor Bronner teach or suggest Applicant's claimed invention including "*further circuitry being operable to receive an intermediate frequency (IF) common to each mode of operation and further downconvert the IF common to each mode into a further signal and to supply the further signal to further circuitry*" (Applicant's independent claim 26) and "*further circuitry being operable to upconvert a received signal into an intermediate frequency (IF) common to each mode of operation and to supply the IF common to each mode to the first and the second terminal RF stages*" (Applicant's independent claim 40), these references, either individually or in any proper combination, **cannot** render obvious, under 35 U.S.C. § 103, Applicant's invention as presently claimed in independent claims 26 and 40. Accordingly, Applicant respectfully requests the rejections of independent claims 26 and 40 be withdrawn.

**Regarding dependent claims 27-39 and 56-60,** the nonobviousness of independent claim 26 precludes a rejection of claims 27-39 and 56-60 which depend therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, Applicant requests that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to independent claim 26 and claims 27-39 and 56-60 which depend therefrom.

**Regarding dependent claims 41-50 and 61,** the nonobviousness of independent claim 40 precludes a rejection of claims 41-50 and 61 which depend therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, Applicant requests that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to independent claim 40 and claims 41-50 and 61 which depend therefrom.

Obviousness Rejection Based on U.S. Pat. Publ. No. 2003/0060195 A1, U.S. Pat. No. 5,873,046 and U.S. Pat. No. 5,943,324

Claims 51-55 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dent in view of Bronner and yet in further view of U.S. Patent No. 5,535,432 to Ramesh *et al.* ("Ramesh").

The nonobviousness of independent claim 26 precludes a rejection of claims 51-55 which depend therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, Applicant requests that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to independent claim 26 and claims 51-55 which depend therefrom.

### **CONCLUSION**

Claims 26-61 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, the Examiner is respectfully invited to contact Applicant's undersigned representative.

Respectfully submitted,

Dated: Oct 5, 2009

By: /Ramin Mobarhan, Reg# 50,182/  
**Ramin Mobarhan, Reg. No. 50,182**  
**(858) 658 2447**

QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, California 92121  
Telephone: (858) 658-5102  
Facsimile: (858) 658-2502